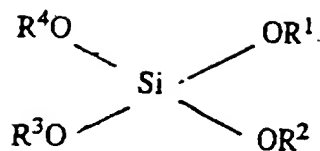


We claim:

- 11. Method of using one ester of the formula (I) to (V)





(V)

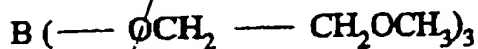
where

R¹, R², R³, R⁴ are identical or different and each, independently of one another, are a linear or branched-chain C₁- to C₄-alkyl, (-CH₂-CH₂-O)_n-CH₃ with n=1 to 3, a C₃- to C₆-cycloalkyl, an aromatic hydrocarbon group which in turn can be substituted, with the proviso that at least one of the groups R¹, R², R³ or R⁴ is (-CH₂-CH₂-O)_n-CH₃ with n=1 to 3

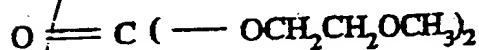
as a solvent in electrolyte systems for Li-ion storage cells.

12. Method according to claim 11, wherein the compound is one wherein R¹, R² and, where present, R³ and/or R⁴ are identical and are -CH₂-CH₂-O-CH₃ or (-CH₂-CH₂-O)₂-CH₃.

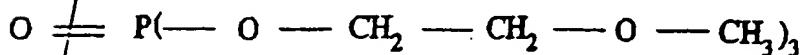
13. Method of using at least one of the compounds of formulae (Ia) to (Va)



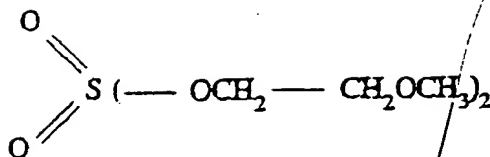
(Ia)



(IIa)

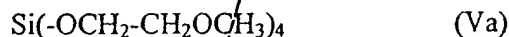


(IIIa)



(IVa)

and



10 as a solvent in electrolyte systems for Li-ion storage cells.

14. Method according to claim 11, wherein LiPF_6 ,
 LiBF_4 , LiClO_4 , LiAsF_6 , LiCF_3SO_3 , $\text{LiC}(\text{CF}_3\text{SO}_2)_3$, $\text{LiC}(\text{CF}_3\text{SO}_2)_2$,
 $\text{LiN}(\text{SO}_2\text{F})_2$, $\text{LiN}(\text{CF}_3\text{CF}_2\text{SO}_2)_2$, LiAlCl_4 , LiSiF_6 , LiSbF_6 or mixtures of
 15 two or more thereof are employed as a conducting salt.

15. A composition comprising:

- (A) at least one compound of formula (I) to (V) as defined in claim 11, and
 20 (B) a conducting salt selected among:

LiPF_6 , LiBF_4 , LiClO_4 , LiAsF_6 , LiCF_3SO_3 , $\text{LiC}(\text{CF}_3\text{SO}_2)_3$, $\text{LiC}(\text{CF}_3\text{SO}_2)_2$,
 $\text{LiN}(\text{SO}_2\text{F})_2$, $\text{LiN}(\text{CF}_3\text{SO}_2)_2$, $\text{LiN}(\text{CF}_3\text{CF}_2\text{SO}_2)_2$, LiAlCl_4 , LiSiF_6 , LiSbF_6
 and a mixture of two or more thereof.

- 25 16. A composition as claimed in claim 15, wherein the compound (A) is
 selected among the compounds of formulae (Ia) to (Va), as defined in
 claim 3 and a mixture of two or more thereof, and the conducting salt (B)
 is LiBF_4 .

- 30 17. An Li-ion storage cell comprising at least one ester as defined in claim 11.

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